

24



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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/893,000	06/28/2001	Jun Miura	SON-2152	6438

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EXAMINER

PHINNEY, JASON R

ART UNIT	PAPER NUMBER
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2879

DATE MAILED: 02/14/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/893,000

Applicant(s)

MIURA ET AL.

Examiner

Jason Phinney

Art Unit

2879

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 October 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) 7 and 8 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 6 is/are rejected.
- 7) ☒ Claim(s) 4-5 is/are objected to.
- 8) ☒ Claim(s) 1-8 are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 June 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☒ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-6, drawn to the product of the electron gun for a flat cathode ray tube, classified in class 313, subclass 442.
 - II. Claims 7 and 8, drawn to the method of producing the electron gun, classified in class 445, subclass 34.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions I and II are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the product claimed requires a magnet disposed outside of a neck characterized in that a prefocus lens is separated from the tube axis, however, neither the process claimed in Claim 7 nor in Claim 8 requires the use of this prefocus lens, therefor the process as claimed can be used to make the materially different product of an electron gun without a prefocus lens.
3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.
4. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

Art Unit: 2879

5. During a telephone conversation with Ronald Kananen on 2/3/03 a provisional election was made with traverse to prosecute the invention of Group I, claims 1-6. Affirmation of this election must be made by applicant in replying to this Office action. Claims 7 and 8 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

6. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Examiner's Notes

7. Claim 7, Line 6 recites "second **grip**" the Examiner believes that the Applicant intended this to read "second **grid**."

Priority

8. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a), (c), and (d), which papers have been placed of record in the file. In order to receive the benefit of foreign priority a certified translation of the foreign documents is required in accordance with 35 U.S.C. 119(b) paragraph 3.

Specification

Art Unit: 2879

9. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

10. The disclosure is objected to because of the following informalities: On Page 2, Lines 9-10 the reference numeral 13 is used to denote both a vertical deflection coil and an electron gun. The Examiner believes that the correct reference numeral for the electron gun would be 8.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

11. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

12. Claim 6 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 6 recites "an end surface having an electron beam the of a second grid is inclined with respect to the center axis" on the 4th through 6th lines of the claim, this is indefinite and should be rewritten to more clearly denote the metes and bounds of the claimed invention.

Claim Rejections - 35 USC § 102

13. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

Art Unit: 2879

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

14. Claim 1 is rejected under 35 U.S.C. 102(b) as being clearly anticipated by U.S. Patent No. 3,875,446 to Miyaoka.

Miyaoka discloses a flat cathode ray tube with an electron gun (Figure 3, A) having a main focus lens (LM) whose center coincides with a tube axis, a deflection yoke (DY) and a magnet (Figure 4, #'s 19 and 22) disposed outside of a neck (N), characterized in that a prefocus lens is separated from the tube axis (Figure 3, LB or LR).

15. Claim 3 is rejected under 35 U.S.C. 102(b) as being clearly anticipated by U.S. Patent No. 3,875,446 to Miyaoka.

Miyaoka discloses an electron gun (Figure 3, A) having a cathode (KR, KG, and KB), a plurality of grids (GR1, GG1, GB1, G2, G3, G4, and G5) characterized in that a prefocus lens (Figure 3, LB or LR) is separated from the center axis of the electron gun in a direction in which an axis-separating amount of an electron beam caused by a magnetic field of a magnet (Figure 4, #'s 19 and 22) disposed outside of a neck (N) becomes smaller (See figure 3, electron trajectories).

Claim Rejections - 35 USC § 103

16. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

17. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 3,875,446 to Miyaoka in view of Prior Art Figure 1.

Miyaoka discloses the cathode ray tube of Claim 1 as described above.

Miyaoka fails to exemplify that the electron beam at a time of non-deflection should be irradiated on a screen inoperative portion except a frit junction portion of the tube body.

The Applicant's Prior Art Figure 1 teaches that the electron beam at a time of non-deflection should be irradiated on a screen inoperative portion except a frit junction portion of the tube body in order to produce a thinner cathode ray tube.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to combine the cathode ray tube of Miyaoka with the electron gun and screen placement taught in Applicant's Prior Art Figure 1 in order to produce a thinner cathode ray tube.

Allowable Subject Matter

18. Claims 4 and 5 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

19. Claim 6 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

20. The following is a statement of reasons for the indication of allowable subject matter:
The prior art of record fails to show or suggest the electron gun having a cathode, a plurality of

Art Unit: 2879

grids characterized in that a prefocus lens is separated from the center axis of the electron gun in a direction in which an axis-separating amount of an electron beam caused by a magnetic field of a magnet disposed outside of a neck becomes smaller and wherein the electron gun requires the additional limitations that the centers of the electron beam through holes of the first and third grids should coincide with the center axis of the electron gun and the center of the electron beam through hole of the second grid should either be separated from the center axis as in Claim 4 or inclined with respect to the center axis as in Claim 6. An electron gun according to the instant invention would function to reduce the beam spot degradation caused by a centering magnet thereby enhancing image quality.

Conclusion

21. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. European Patent Application No. 0567871 to Anzai teaches that the electron beam through holes of the first and second grids should be aligned with the central axis of the electron gun while the electron beam through holes of the third grid should be shifted from alignment (See Abstract). U.S. Patent No. 5,412,277 to Chen teaches the offsetting of the G_{5B} , G_{5C} , and G_{5D} beam pass through holes (See Figure 6), however, the first through third grids are aligned with respect to the central axis of the electron gun.

22. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason Phinney whose telephone number is (703) 305-3999. The examiner can normally be reached on M-F 7:30-4:00.


Art Unit: 2879

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel can be reached on (703) 305-4794. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7382 for regular communications and (703) 872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

JP

February 7, 2003


NIMESHKUMAR D. PATEL
SUPERVISORY PATENT EXAMINER
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